Safety Data Sheet

CLEARPAC D054

SECTION 1. IDENTIFICATION

Product Identifier	ClearPAC D054
Other Means of Identification	Code: CPACD054** DSL: Aluminum chloride, basic CAS: 1327-41-9
Product Use and Restrictions on Use	For commercial or industrial use.
Initial Supplier Identifier	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada Phone: 1 (800) 387-7503 www.cleartech.ca
24 Hour Emergency Phone	(306) 664-2522

SECTION 2. HAZARD IDENTIFICATION

Corrosive to Metals	Category 1
Eye Damage	Category 1

Pictograms

Signal Word: Danger

Hazard Statements	H290 May be corrosive to metals. H318 Causes serious eye damage.
Precautionary Statements	
Prevention	P234 Keep only in original packaging. P280E Wear protective gloves, eye protection, face protection.
Response	P305 P351 P338 P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor. P390 Absorb spillage to prevent material damage.
Hazards not Otherwise Classified	Not available

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients:

Chemical Name	*Synonym(s)*	*CAS Number*	*Concentration (w/w%)*
Aluminum chloride, basic	PAC; Poly Aluminum Chloride	1327-41-9	15-18%

SECTION 4. FIRST-AID MEASURES

Description of Necessary First-Aid Measures

Inhalation	Get medical advice or attention if you feel unwell.

Ingestion	Get medical advice or attention if you feel unwell.
Skin Contact	Rinse skin with lukewarm, gently flowing water / shower for 5 minutes or until product is removed. If skin irritation occurs: Get medical help.
Eye Contact	Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for 30-60 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. Immediately call a POISON CENTER or doctor.

Most Important Symptoms and Effects, Both Acute and Delayed

Inhalation	May cause respiratory irritation.
Ingestion	May cause discomfort or nausea.
Skin Contact	May cause transient skin irritation or redness.
Eye Contact	Causes serious eye damage.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Extinguish fire using extinguishing agents suitable for the surrounding fire.
Unsuitable Extinguishing Media	Water jets are not recommended in fires involving chemicals.
Specific Hazards Arising from the Chemical	Reacts with many metals to liberate hydrogen gas that can form explosive mixtures.
Special Protective Equipment for Fire-Fighters	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions / Protective Equipment / Emergency Procedures	Wear appropriate personal protective equipment (See Section 8 Exposure Controls and Personal Protection). Stay upwind, ventilate area.
Environmental Precautions	Prevent material from entering waterways, sewers or confined spaces. Notify local health and wildlife officials. Notify operators of nearby water intakes.
Methods and Materials for Containment and Cleaning Up	SMALL SPILLS: Stop or reduce leak if safe to do so. Clean up spill with non-reactive absorbent and place in suitable, covered, labeled containers. Flush area with water. Contaminated absorbent material may pose the same hazards as the spilled product. LARGE SPILLS: Contact fire and emergency services and supplier for advice.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling	A soak hose and eyewash station or emergency shower and eyewash station should be available, tested, and be near to the product being handled in accordance with provincial regulations. Use sensible workplace hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure. Inspect containers for damage or leaks before handling. If the original label is damaged or missing replace with a workplace label. Have suitable emergency equipment for fires, spills and leaks readily available. Never return contaminated material to its original container.
Conditions for Safe Storage	Store in a cool, dry, well-ventilated area, out of direct sunlight, away from heat sources and incompatible materials. Always store in original labeled container. Keep containers tightly closed when not in use and when empty. Protect label and keep it visible. Empty containers may contain hazardous residues. Do not transfer to metal containers.
Incompatibilities	Bases, such as potassium hydroxide, sodium hydroxide, calcium hydroxide (slaked lime), ammonia, carbonates. Metals, such as aluminum, steel, and brass.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits

There are no known exposure limits for this product.

Engineering Controls

Ventilation Requirements	Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions should be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.

Protective Equipment

The following are recommendations only. It is the responsibility of the employer / user to conduct a hazard assessment of the process in which this product being used and determine the proper engineering controls and PPE for their process. Additional regulatory and safety information should be sought from local authorities and, if needed, a professional industrial hygienist.

Eye and Face Protection	Where there is potential eye or face exposure, tightly fitting safety goggles and a face shield or a full-face respirator or similar protective equipment which protects the wearer's face and eyes are recommended. Contact lenses are not recommended; they may contribute to severe eye injury.
Hand and Body Protection	Disposable latex or nitrile gloves are recommended to prevent incidental contact. Leather gloves are not recommended for chemical protection. Butyl rubber, neoprene, or PVC skin protection is recommended for extended contact. Refer to manufacturer’s specifications for breakthrough times and permeability information; note that breakthrough times and permeability vary with temperature, application and age of material. Continued use of contaminated safety gear or clothing is not recommended, wash before reuse or discard.

Respiratory Protection	If mists or aerosols are generated during handling, wear approved respiratory protection. Reevaluate any respiratory protection used regularly, as their protective effects tend to degrade over time. In emergency conditions SCBAs are recommended.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Colour	Clear, colourless to pale yellow
Odour	Odourless
Odour Threshold	Not applicable
pH	2.0-4.0
Melting Point / Freezing Point	Not available
Initial Boiling Point and Boiling Range	Not available
Flash Point	Not available
Evaporation Rate	Not available
Flammability	Not applicable
Flammability Limits	Not available
Vapour Pressure	Not available
Vapour Density	Not available
Relative Density (Specific Gravity)	~1.09 @ 20 °C
Solubility	Soluble in water in water
Partition Coefficient: n-Octanol/Water	Not available
Auto-Ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available
Particle Characteristics	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	May be corrosive to metals. Reacts violently with bases.
Stability	This product is stable if stored according to the recommendations in section 7.
Possibility of Hazardous Reactions	Reacts with many metals to liberate hydrogen gas that can form explosive mixtures.
Conditions to Avoid	Avoid contact with incompatible materials.
Incompatible Materials	Bases, such as potassium hydroxide, sodium hydroxide, calcium hydroxide (slaked lime), ammonia, carbonates. Metals, such as aluminum, steel, and brass.
Hazardous Decomposition Products	None known

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component	*Type*	*Value*
Aluminum chloride, basic	LD50 - oral - rat	>2000 mg/kg
Aluminum chloride, basic	LD50 - dermal - rat	>2000 mg/kg
Polyaluminum chloride hydroxide sulphate	LC50 - inhalation (aerosol) - 4 hours - rat	>5000 mg/m^3

Toxic Health Effect Summary

Inhalation	May cause respiratory irritation.
Ingestion	May cause discomfort or nausea.
Skin Contact	May cause transient skin irritation or redness.
Eye Contact	Causes serious eye damage.
Sensitization	This product and its components at their listed concentration have no known sensitizing effects.
Mutagenicity	This product and its components at their listed concentration have no known mutagenic effects.
Carcinogenicity	This product and its components at their listed concentration have no known carcinogenic effects.
Reproductive Toxicity	This product and its components at their listed concentration have no known reproductive effects.
Specific Organ Toxicity	This product and its components at their listed concentration have no known effects on specific organs.
Aspiration Hazard	Not available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Aluminum salts are insoluble in neutral water, so standardized environmental toxicity tests are not possible.

Biodegradability	The domestic substance list categorizes aluminum chloride, basic as persistent.
Bioaccumulation Potential	The domestic substance list categorizes aluminum chloride, basic as non-bioaccumulative.
Mobility	This product is water soluble, but is expected to adsorb to soil and is not expected to contaminate ground water.
Other Adverse Effects	The domestic substance list categorizes aluminum chloride, basic as inherently toxic to aquatic organisms.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste from Residues / Unused Products	Dispose in accordance with all federal, provincial, and local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	Do not remove label, follow label warnings even after the container is empty. Empty containers should be recycled or disposed of at an approved waste handling facility.

SECTION 14. TRANSPORT INFORMATION

UN Number	UN3264

UN Proper Shipping Name and Description	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Aluminum chloride, basic)
Transport Hazard Class(es)	8
Packing Group	III
Excepted Quantities	5 L
Environmental Hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
Transport in Bulk	Not available MARPOL 73/78 and IBC Code: This product is not offered for sale in maritime bulk chemical tankers.
Special Precautions	No special precautions
Additional Information	Secure containers (full or empty) during shipment and ensure all caps, valves, or closures are secured in the closed position.

SECTION 15. REGULATORY INFORMATION

All components of this product appear on the domestic substance list.

SECTION 16. OTHER INFORMATION

Date of latest revision: November 4, 2026

Note: The responsibility to provide a safe workplace remains with the buyer / user. The buyer / user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results and assume no liability for damages incurred by using this material. It is the responsibility of the buyer / user to comply with all applicable laws and regulations regarding handling, using, reselling and shipping this product.

Attention: Receiver of the chemical goods / SDS coordinator

As part of our commitment to the RDC Responsible Distribution® initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns, please call our customer service center.

References:

NIOSH Pocket Guide to Chemical Hazards; U.S. Department of Health and Human Services, https://www.cdc.gov/niosh/npg/default.html

WorkSafe BC E-Limit; Workers' Compensation Board of British Columbia, https://elimit.online.worksafebc.com/

ECHA - Registered Substance Dossier; European Chemicals Agency, https://chem.echa.europa.eu/100.014.071/overview

Transportation of Dangerous Goods Regulations; Transport Canada, https://laws-lois.justice.gc.ca/eng/regulations/SOR-2001-286/index.html

Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Seventh revised edition

The ACS Style Guide